

## MODULE 27105

## FLOOR SYSTEMS

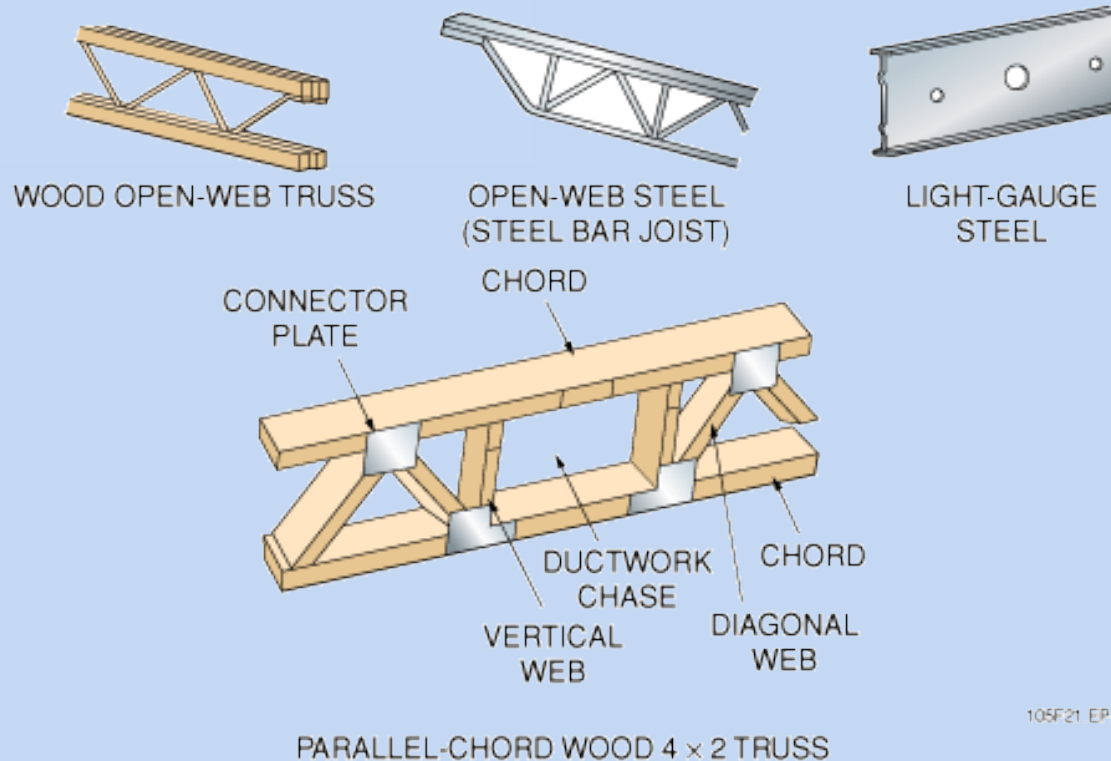
(27105 LESSON 2b)

SLIDE PRESENTATION

SLIDE 23A

## 4.0.0 The Floor System

- Trusses are also used as joists. There are several types.



105F21 EPS

**Figure 21** Typical trusses.

SLIDE 23B

## 4.0.0 The Floor System

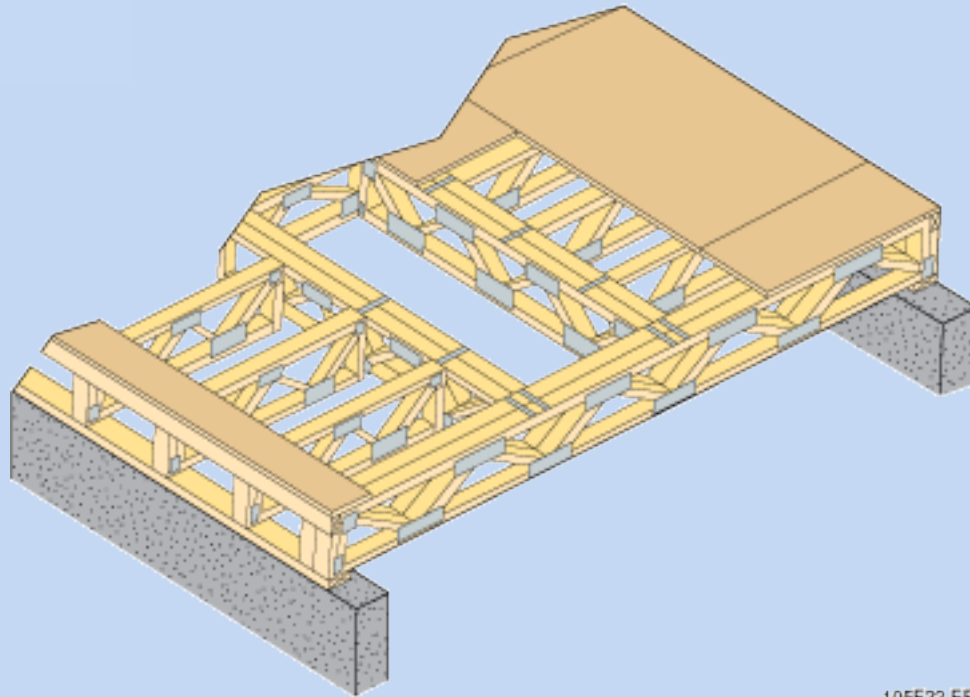


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SLIDE 24

## 4.0.0 The Floor System

- Metal trusses are common in commercial construction. They allow for greater spans than wood trusses.
- Wood trusses are most likely to be used in residential construction.



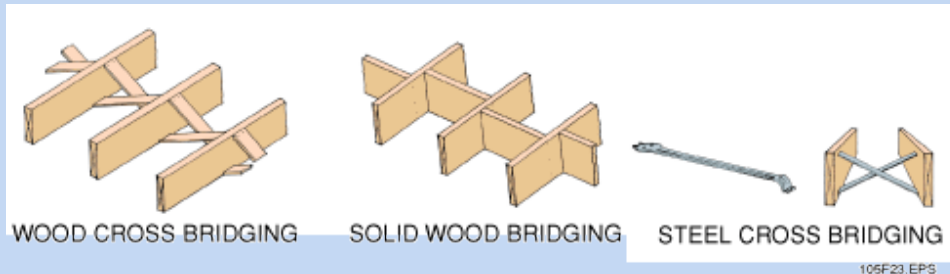
**Figure 22** Typical floor system constructed with trusses.

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SLIDE 25

## 4.0.0 The Floor System

- Bridging is used to stiffen the floor frame and to allow overloaded joists to receive some support from joists on either side.
- There are three common types of bridging. Most codes require bridging to be installed between floor joists at intervals of not more than 8 feet.



**Figure 23** Types of bridging.

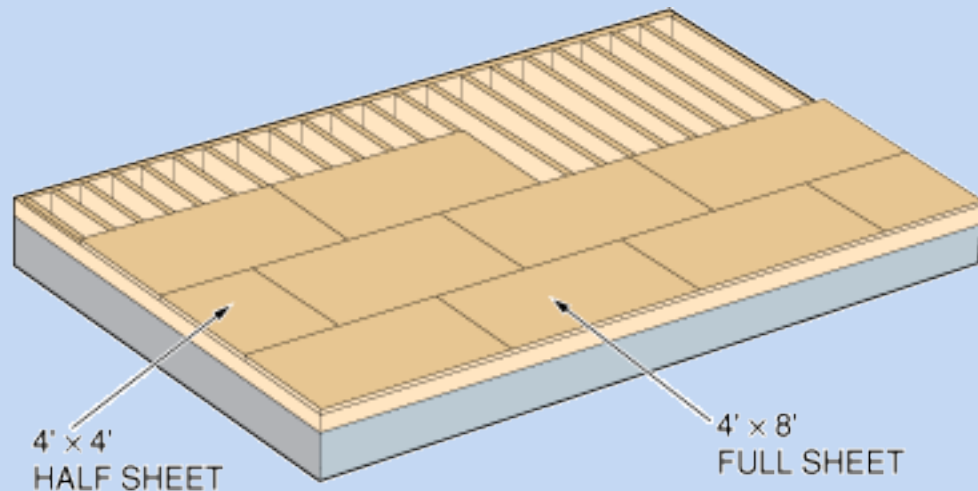


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SLIDE 26

## 4.0.0 The Floor System

- Subflooring consists of panels or boards fastened to the floor joists to provide a base for **underlayment** or finish floor material.
- Underlayment is material such as particleboard or plywood laid on the subfloor to provide a smooth surface for finish flooring.



105F24.EPS

**Figure 24** Subflooring installation.

SLIDE 27

## 4.0.0 The Floor System

- Plywood, OSB, manufactured board panels, or common wood boards can be used as subflooring.
- APA-rated plywood is often used for subfloors. These panels can be square edge or tongue-and-groove.
- The panels are generally glued and nailed to help stiffen the floors and eliminate squeaking and nail pops.
- When boards are used as subflooring, they are usually laid diagonally. This makes the floor more rigid and helps brace floor joists.
- Board subfloors are not as rigid as panel subfloors.

**Table 1** Guide to APA Performance-Rated Plywood Panels

Panel Grade	Thickness in Inches	Span Rating
Rated Sheathing	$\frac{3}{8}$	24/0
	$\frac{7}{16}$	24/16
	$\frac{15}{32}$	32/16
	$\frac{19}{32}$	40/20
	$\frac{23}{32}$	48/24
Rated Sturd-I-Floor	$\frac{19}{32}$	20 OC
	$\frac{23}{32}$	24 OC
	$\frac{7}{8}, 1$	32 OC
	$1\frac{1}{8}$	48 OC
Rated Siding	$\frac{11}{32}$	16 OC
	$\frac{7}{16}$	24 OC
	$\frac{15}{32}$	24 OC
T1-11	$\frac{19}{32}$	16 OC
	$\frac{19}{32}$	24 OC



**End of Presentation**